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Automotive News

September 29, 1986

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61st year—$50.00 per year, $1.25 per copy

South Asia hoping for surge in industry

By Andrew Tanh
STAFF CORRESPONDENT

SINGAPORE — South Asia is emerging as an important auto manufacturing region, a significant exporter of low-cost vehicles and components built by low-paid workers and eager governments.

South Asian governments are delighted by the soaring Japanese yen. It is giving added momentum to the region's development, which had been stalled by acute economic recession.

In the process, real effects could be felt in the United States, such as Chrysler Corp. possibly importing Malaysia's Proton Saga as an Omni-Horizon replacement.

For the longer term, South Asian planners are impressed at how other developing nations — as diverse as South Korea, Spain and Mexico — have used the auto industry to reduce rural poverty. They have encouraged an infusion of foreign technology and capital — mostly from Japan — and insisted that the proportion of locally made parts should increase at a fast clip.

AUTOMOTIVE NEWS CHARLOTTE WIRTZ

South Asia is one of the few remaining major unexploited auto markets, and it is poised to be the next to develop rapidly.

By the early 1990s, India, Indonesia, Malaysia and Thailand will each have an integrated auto manufacturing industry using some of the latest assembly techniques. Even two of the world's poorest nations — Bangladesh and Nepal — are in the early stages of setting up fledgling assembly plants.

The scope is vast. South Asia already has 1 billion people — one-fifth of the world's total. The region spans the same distance as from New York to Anchorage, Alaska, and contains massive un-

see ASIA, page 33

Market shifts seen as way to head off excess production

By Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTER

Massive losses from overcapacity in the United States can be avoided — if Japanese automakers shift into the right market segment.

The latest Automotive News World Outlook, a service of Automotive News and the economic forecasting firm Data Resources Inc., shows that an enormous glut in capacity — and the price war and red ink that would result — can be avoided.

"There doesn't have to be lot of price slashing and it doesn't have to be a financial loser for everybody," said John Hammond, DRI's U.S.-based economist.

However, he said, U.S. and Japanese companies must act fast and make their moves by 1988 or 1989, the first years of major overcapacity problems.

More than a year ago, the World Outlook said the U.S. auto industry was headed toward an overcapacity problem, particularly in the subcompact segment. It looked as if there were no way out.

The forecast then showed that production capacity in the United States and in plants in foreign countries aiming their products at the United States would increase about 15 percent by the end of 1990. At the same time, annual vehicle demand was estimated to increase only 7 percent by the end of 1990.

The somber scenario for the United States resembled the recent situation in Europe. The World Outlook had predicted intense price competition and a financial bloodbath, particularly for domestic automakers.

But now, said Hammond, "the car companies are doing the simple arithmetic. The question is, how do they deal with it?"

The domestics, Hammond said, will deal with it by cutting back their domestic production plans.

see OUTLOOK, page 52

Profits hold for used cars while APRs reduce sales

By Edward Lapham
AUTOMOTIVE NEWS STAFF REPORTER

The current round of annual-percentage-rate finance incentives has softened late-model used-car sales in some markets, but gross margins seem to be unaffected.

"There is no question that the APRs are depressing the late-model used-car market," said Lynn Weaver, editor of the National Automobile Dealers Association's Used Car Guide.

"The market is very soft right now," Weaver said. "With APR, you can get into a new car for the same or less than you can get into a late-model used car."

Nonetheless, independent used-car dealers and new-car dealers with used-car lots said last week that per-unit profits were holding, or even increasing.

"The strength of the used-car

see USED CARS, page 53

Austin Rover execs ousted in shuffle

By Richard Johnson
AUTOMOTIVE NEWS STAFF REPORTER

Rover Group Chairman Graham Day shook up top management at the sagging Austin Rover car division last Thursday. The chief executive and two other senior officers were replaced and a new head of marketing was appointed.

Austin Rover Chairman Harold Musgrove, a 40-year company veteran, will take early retirement effective Oct. 1. Mark Snowdon, chief product planner, and Peter Regnier, finance director, left the company.

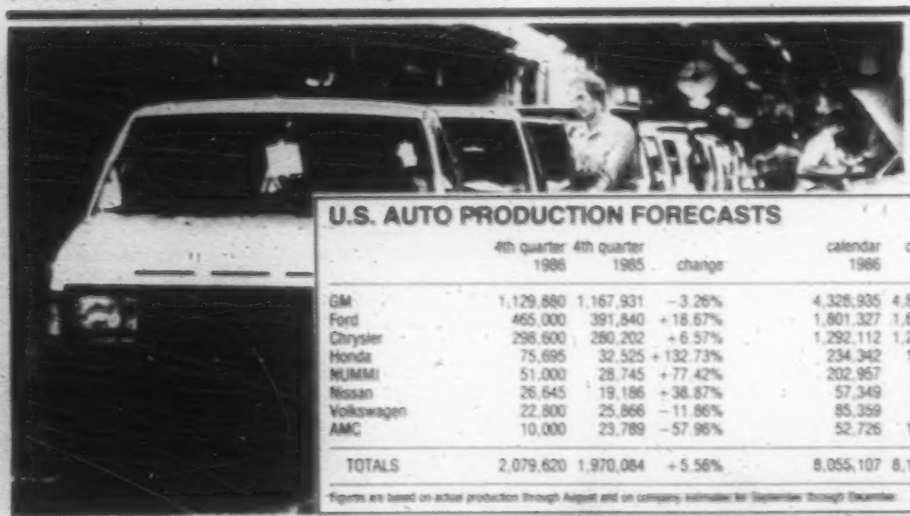
The changes coincided with the announcement of a $300 million first-half loss for Rover Group. The deficit includes a $90 million loss for Austin Rover.

Under the new alignment, Day becomes chairman of the car unit, and Les Wharton, currently managing director of Leyland Trucks, becomes managing director. They will share Musgrove's previous duties.

In addition, Tony Rose, Land Rover-Leyland Trucks finance director, takes over as Austin Rover's chief financial officer, and Chris Woodwark, previously managing director of Land Rover-Leyland International, assumes the new position of commercial director of Austin Rover.

The Woodwark appointment supersedes the duties

see ROVER, page 52



Output in 4th quarter slated to top '85 total

By Kathy Barbaglio
AUTOMOTIVE NEWS STAFF REPORTER

Domestic automakers plan to build nearly 6 percent more cars in the fourth quarter than they did last year, making calendar 1986 another 8-million-car year and nearly on par with 1985.

The makers' schedules call for 2,079,620 cars for the final quarter, 5.56 percent more than last year's output of 1,970,084.

Automakers estimate they will build 8,055,107 cars for all of 1986, down 1.60 percent from the 1985 total of 8,186,040.

The bulk of the projected fourth-quarter increase will come from two foreign-based firms and one that is a U.S.-foreign joint venture. The eight companies that manufacture cars in the United States plan to

see FORECASTS, page 52

U.S. AUTO PRODUCTION FORECASTS

	4th quarter 1986	4th quarter 1985	change	calendar 1986	calendar 1985	change
GM	1,129,880	1,167,931	−3.26%	4,326,935	4,822,478	−10.23%
Ford	465,000	391,840	+18.67%	1,801,327	1,636,150	+10.10%
Chrysler	298,600	280,202	+6.57%	1,292,112	1,266,068	+2.06%
Honda	75,695	32,525	+132.73%	234,342	145,337	+61.24%
MUMMI	51,000	28,745	+77.42%	202,957	64,601	+214.17%
Nissan	26,645	19,186	+38.87%	57,349	43,810	+30.90%
Volkswagen	22,800	25,866	−11.86%	85,359	96,458	−11.51%
AMC	10,000	23,789	−57.96%	52,726	111,138	−52.56%
TOTALS	2,079,620	1,970,084	+5.56%	8,055,107	8,186,040	−1.60%

*Figures are based on actual production through August and on company estimates for September through December.

Bombings affect Paris auto show — Page 2
Flat Rock's Fords delayed — Page 3
'The Reckoning': Fresh research — Page 36

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Dodge aims to be No. 3 nameplate by 1990

By Mary Connelly
AUTOMOTIVE NEWS STAFF REPORTER

Dodge is shaping a plan for a 24 percent sales increase to 1.2 million cars and trucks by 1990 and a position as the No. 3 volume division in the United States.

Dodge currently vies for fourth place with Toyota and expects to sell nearly one million vehicles this year.

The Dodge plan is part of the long-term strategy Chrysler Motors is formulating to differentiate Chrysler, Plymouth and Dodge products in consumers' minds.

Chrysler is being positioned as the luxury division. Plymouth is linked with integrity, Dodge cars with performance and Dodge trucks with toughness.

Dodge's strategy to gain market penetration calls for use of high-end, high-performance image models supported by a broad range of affordable models.

"I am convinced you can marry those two approaches successfully if you have the products and define the consumer groups," said John B. Damoose, Dodge general marketing manager.

Pontiac Motor Division is not Dodge's prime domestic competition, Damoose said. Pontiac's market is more narrowly defined, he said. Dodge is working "to appeal to the broad range of Ford, Chevrolet and Pontiac buyers."

"We want to be a volume marketer of fun-to-drive, performance-oriented cars that appeal to the heart-of-the-market American buyer," he said.

Damoose said brand distinction among the three Chrysler Motors makes will be more apparent in 1988 and 1989 models.

Early product moves include offering the 1987 Daytona body exclusively as a Dodge and the LeBaron coupe body exclusively as a Chrysler. The performance version of Chrysler Motors' new small cars, Dodge Shadow and Plymouth Sundance, is available only to Dodge.

Dodge's plan for hefty sales gains comes when the market is becoming increasingly competitive. However, Chrysler Corp. Chairman Lee A. Iacocca said last week that the company's long-term goal is to capture 15 percent of the car market and 15 to 20 percent of the truck market.

Damoose said aggressive product plans are the basis of Dodge's strategy.

"We're expanding our car lines," he said. "We're getting into markets we haven't been in," he said. "We will be much more involved in the mid-sized and smaller pickup-truck market. We'll be broadening our coverage of the middle of the market, and we'll be coming out with some more expressive performance vehicles.

"We'll have a new Daytona. There is the new Dakota truck. There will be other trucks and special models between now and 1990.

see DODGE, page 53

RICK LIEBER

John Damoose: "We want to be a volume marketer of fun-to-drive, performance-oriented cars."

New models to tip scales for Chevy

By Michelle Krebs
AUTOMOTIVE NEWS STAFF REPORTER

WARREN, Mich. — Chevrolet Motor Division expects to increase both its sales and market share in 1987 because of its new mid-size entries, the Corsica and Beretta.

Chevrolet General Manager Robert Burger, at the division's 1987 model preview, predicted 1987 model-year sales of 1.8 million cars and 1.3 million trucks. That compares with 1.7 million cars and 1.3 million trucks in 1986.

Market share will be up a percentage point in calendar 1987 at 17 percent, Burger predicted.

Chevrolet predicts sales drops in nine of its 11 car lines. Corsica and Beretta, which will be introduced in the spring, will boost Chevrolet's 1987 model-year sales above those in 1986.

Burger said that the division wants no low-interest financing incentives to launch the 1987 models.

"The plan now is on introduction day, that's it. We'll go naked for the foreseeable future," he said.

"I hope the industry stands pat on no incentives," he said. "But if anybody announces new incentives, it will be no more than 24 hours later that Chevrolet responds."

Burger said Chevrolet, like Pontiac Motor Division, will cut back on the number of free-standing options available on its models and instead offer option packages.

Option packages and a limited number of free-standing options are available on Camaro, Corsica and Beretta. Burger said by 1988 or 1989, all models will have only option packages.

Burger also said he expects it to be at least two years before the GM80 program is resurrected. GM80 is the replacement program for Camaro and Pontiac Firebird. The replacement vehicle would have been front-drive and plastic bodied. However, the program was scrapped, or at least postponed until the 1990s.

Burger said Chevrolet's challenge will be to keep Camaro fresh. He said Chevrolet will do more IROC-type packages, aimed at market niches, to keep volume up.

Chevrolet predicts 1987 car sales to breakdown as follows: Caprice, 204,000, down from 227,000 in the 1986 model year; Corvette, 30,000, down from 36,000; Monte Carlo, 93,000, down from 118,000; Celebrity, 360,000, down from 399,000; Camaro, 160,000, down from 173,000; all-new Corsica and Beretta, 233,000; Cavalier, 345,000, down from 387,000; Chevette, 60,000, down from 75,000; Sprint, 61,000, down from 67,000; Spectrum, 90,000, about the same as the 91,000 in 1986; and Nova, 180,000, up from 171,000. The other 3,000 sales for 1986 were from Citation, which was dropped.

The 1987 truck forecast: S-10 pickup, 215,000, down from 217,000; S-10 Blazer, 160,000, down from 189,000; El Camino, 20,000, down from 23,000; Astro, 150,000, up from 136,000; Chevy Van/Sportvan, 140,000, down from 155,000; Blazer, 40,000, down from 47,000; Suburban, 52,000, down from 63,000; full-size pickup, 506,000, up from 441,000; medium-duty trucks, 19,000, about the same as the 20,000 in 1986.

RICK LIEBER

Chevrolet General Manager Robert Burger with Camaro Z28 convertible

Camaro convertible to return

WARREN, Mich. — Chevrolet will offer a Camaro convertible in the 1987 model year to celebrate the car's 20th anniversary.

It will be the first Camaro soft-top since 1969. Chevrolet also offers convertibles in its Corvette and Cavalier lines. There will be ragtop versions of all Camaro models — IROC-Z, Z28, LT and Sport Coupe.

The convertibles will go on sale in January, and Chevrolet expects to sell 4,000 in the 1987 model year. The conversion will be done by American Specialty Co., a division of American Sunroof Co., of Southgate, Mich.

Mazda to delay Ford production

By Jesse Snyder
AUTOMOTIVE NEWS STAFF REPORTER

A new car that Ford Motor Co. expected to market as a 1988 model may become a 1989 model because all early production at Mazda's Flat Rock, Mich., plant will be Mazda 626s, not Fords.

Louis Lataif, Ford Sales Operations vice president, spoke of the Mazda-designed car at a recent press preview of Ford Motor's 1987 models. He said Ford would share output with Mazda at Flat Rock starting with job one in October 1987 and that the new Ford would debut as a 1988 model.

But a spokesman for the Mazda plant said the next day that all initial production would be Mazda models, with production for Ford starting sometime in 1988. Ford and Mazda eventually will split production at the plant, which will have an annual capacity of 240,000 vehicles.

But Mazda is looking for domestic production that would allow it to expand U.S. sales and introduce a U.S. version of the new-generation of the Luce (929 series).

"We're not expecting to receive any cars until late February or March of 1988," a Ford spokesman later acknowledged. That would push the debut into March or April.

"I'm pushing for it to be a 1989 designation," Louis A. Ross, Ford executive vice president for North American Automotive Operations, told the Detroit Auto Writers Group last week.

If Ford decides to go with a 1988 label, it would be because of new state laws limiting how early a next-year model designation can be used, or because Ford needs the new model to help meet the 1988 federal passive-restraint standard or the Corporate Average Fuel Economy requirements, Ross said.

Ford seemed surprised that it would not immediately split Flat Rock production with Mazda, which is 25 percent owned by Ford. But the delay may postpone a decision on what powertrain to use in the Ford version.

Ford is known to be considering its own 2.3-liter, four-cylinder engine and three-speed automatic transaxle for some Flat Rock Fords, with a Mazda-built transaxle for manual-shift versions.

Ford has not disclosed the name of the new car. But it is expected to market the front-wheel-drive Flat Rock car as a low-level Mustang.

INDEX

Auction reports	41
Automotive world news	29-32
Books of interest	36
Classifieds	42-50
Coming events	35
Engineering	12
Legal briefs	16
News briefs	8
Opinion	10
Personnel	24
Production	54
Truck industry	20

61st year—No. 5147

AUTOMOTIVE NEWS (ISSN 0005-1551) is published weekly except semiweekly the fourth week in April at 965 E. Jefferson, Detroit, MI 48207. Second-class postage is paid at Detroit, MI and at additional mailing offices. Postmaster: Send address changes to AUTOMOTIVE NEWS, Circulation Department, 965 E. Jefferson, Detroit, MI 48207.

Feaheny's suit against Ford bosses goes to trial

By Roger Rowand
AUTOMOTIVE NEWS STAFF REPORTER

The judge hearing a $130 million suit brought by a former Ford Motor Co. vice president said a jury will be seated quickly but that the trial could last two months.

Wayne County Circuit Judge Michael J. Talbot in Detroit said he hopes lawyers for both sides will be able to agree on a jury today, the first day in court for the case of Thomas J. Feaheny against six current and retired Ford executives.

Feaheny alleges that his salary was frozen, he was denied perquisites given to others and was excluded from stock option eligibility.

Feaheny

He was vice president in charge of vehicle research when he was fired in September 1983, a few weeks after he filed the suit.

Defendants are Philip Caldwell, retired Ford chairman; Harold A. Poling, Ford president; Louis R. Ross, executive vice president for North American Automotive Operations; John McDougall, retired executive vice president for International Automotive Operations; Harold C. MacDonald, retired vice president for engineering and research; and Peter J. Sherry, retired vice president for personnel and organization. All have been subpoenaed to appear at the trial.

A list of possible witnesses for Feaheny includes two former Ford executives — Lee A. Iacocca, chairman of Chrysler Corp., and Marvin T. Runyon, president of Nissan Motor Manufacturing Corp. U.S.A.

Court documents filed by Feaheny charged that Runyon and others were victims of a "denigration program" in the company.

The first testimony expected to be heard by the six-person jury will be a videotaped deposition by Henry Ford II, former Ford chairman. He initially was a defendant but was dropped from the case.

Ford Motor Co. is not a defendant.

As part of the pretrial maneuvering, Feaheny offered to drop McDougall as a plaintiff in return for $500,000 and McDougall's cooperation in testifying in Feaheny's behalf. McDougall rejected the offer, court records show.

Caldwell is scheduled to testify Oct. 6-8. McDougall, MacDonald and Sherry are scheduled for Oct. 13-17, and Poling for Oct. 20-21. Ross is slated to testify Oct. 27.

Made in Taiwan

Will Taiwan be Asia's next automotive powerhouse?

By Andrew Tank

Japan became a major force in automotive manufacturing in the 1960s. South Korea is flexing its muscles in the 1980s.

Could Taiwan be the Far East's next automotive powerhouse in the 1990s?

That question is being asked by major vehicle manufacturers around the globe as they jockey for position in Taiwan's rapidly growing automotive industry.

A series of strategic alliances is being struck that could turn the island off the southeast coast of China into as busy an auto manufacturing base as South Korea by the end of the decade.

Nissan Motor Co. Ltd., Ford Motor Co. and Honda Motor Co. Ltd. have long-standing ties in Taiwan. Toyota Motor Co. Ltd. and Mitsubishi Motors Corp. took equity shares in Taiwanese firms in the past year. General Motors and San-Fu are in the final stages of negotiating a partnership. Chrysler Corp. and Mazda Motor Corp. are studying possible joint ventures.

Just this month, Taiwan's potential as an automotive center got a hefty boost when Fuji Heavy Industries Ltd., maker of Subaru vehicles, invested in a new joint-venture.

On Sept. 9, Taiwan's Economics Ministry announced approval of the new firm, Ta Ching Motor Co. Fuji is spending $11.4 million for a 35-percent stake, with local company Taiwan Vespa providing $19.5 million.

Production is scheduled to start in 1988 when Ta Ching hopes to make 6,000 vehicles. The plan is to build 36,000 vehicles in 1989, and 48,000 cars and 12,000 trucks by 1990. At least half the planned output will be exported.

It is the fourth joint-venture in Taiwan involving Japanese firms announced in the last year.

Last fall, Nissan took a 25-percent stake in Taiwan's biggest automaker, Yue Loong Motor Co. Ltd. Last February, Toyota bought 22 percent of a small truck-maker, Kuo Zui. Soon after, Mitsubishi purchased 25 percent of China Motor.

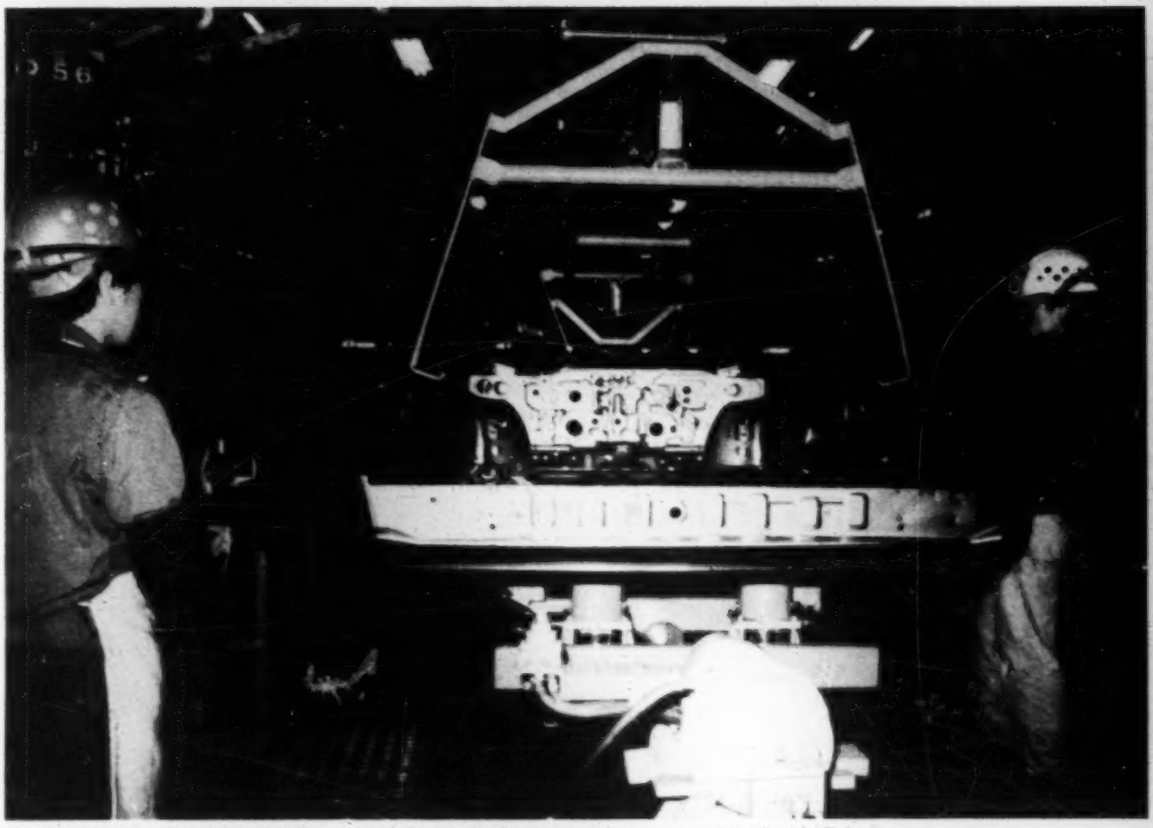
Other major automakers in Taiwan are Ford Lio Ho, 70 percent owned by Ford Motor, and Sanyang, 14 percent owned by Honda.

Add to this an automotive parts industry that has doubled export volume to $450 million in the last three years, and the 36,000-square-kilometer island starts to loom large on the world auto map.

"By 1990 $1 billion of auto exports would be a reasonable estimate," says Dick Mou, director of market development at the China External Trade Development Council. "In the next few years we hope to make major inroads into the original-equipment manufacturer component market."

The prospect of major vehicle exports from Taiwan in the near future seems less likely.

Ford's 70 percent-owned subsidiary Ford Lio Ho Motor Co. recently started shipping Taiwan-assembled Mercury Tracer cars to Canada at a rate of about 1,000 a month, and hopes to export up to 30,000 a year.



The Ford Lio Ho plant (above) is the most technologically advanced auto assembly plant in Taiwan.

Taiwan's biggest automaker, Yue Loong, 25 percent owned by Nissan, hopes to export small volumes of cars to Japan and is discussing other export options with Chrysler.

Other possibilities are Third World commercial-vehicle exports from China Motor, 25 percent owned by Mitsubishi, and the development of export capability by Toyota, which grabbed a 22-percent stake in Kuo Zui earlier this year.

But most of these are strategic ideas rather than immediate plans. Taiwan's automakers realize they must upgrade production efficiency before they can mount major export drives.

Says Haruyoshi Nakamura, appointed quality control director of Yue Loong last year: "Japanese quality must be our goal in order to export. We are not there yet."

It is more likely that, for now, the main task of Taiwan's diligent and highly skilled workers will be auto parts production.

Says Hsu Kuo-an, director of Taiwan's Industrial Development Board: "We have to make ourselves an indispensable part of multinational corporations' worldwide strategy."

The policy to achieve that is causing dispute. Taiwan's government is adopting a "free-market" approach to the auto industry. Last year it unveiled a policy that radically cuts protectionist barriers in a bid to force local auto companies to become internationally competitive.

Tariffs on imported completely built-up cars will be cut 5 percent a year from 60 percent now to 30 percent by early next decade. Tariffs on completely knocked-down kits used by local assemblers will be reduced only from 35 percent to 25 percent, thus giving importers an equal chance to compete against local firms.

In addition, the former policy of insisting that local vehicle manufacturers attempt to use 70 percent locally made parts has been relaxed. In three years the target will be 50 percent.

More recently — under pressure from U.S. trade negotiators — the Taiwanese government permitted future auto joint ventures without committing them to an export target, and is allowing Japanese-designed cars built in Europe or the U.S. to be imported. Direct car imports from Japan and Communist countries remain banned.

The liberalized approach is angering the two automakers that made the biggest investments in developing Taiwan's indigenous auto industry.

Says Ford Lio Ho President Jo G. Auton: "The domestic industry cannot survive under the new government auto policy. We argue that you need a strong domestic auto industry as a base to develop auto export industries."

Adds a manager at Yue Loong: "It's crazy. After all this effort to build the industry, they're now saying we should reduce our local content."

Taiwan's auto assembly industry employs around 10,000 people, its parts industry over 50,000, although the nation's low unemployment weakens any job-preservation argument.

IDB's Hsu argues that for 30 years the auto industry in Taiwan has enjoyed greater protection than other major local industries such as electronics, and that the impact of the new measures has been spread over six years. He hopes this will prompt local automakers to rationalize their production, encourage joint purchases from component suppliers (in the same way that Taiwanese TV makers use a common chassis) and, above all, force greater efficiency.

Hsu, who insists there is no possibility of changing the direction of the government's policy, concludes, "If they (auto manufacturers) want to survive, they'll have to do it this way. Six years is a good time to develop an industry."

But the future health of the auto industry is not the IDB's only concern. Taiwan's exporters of textiles and electronics are so successful that the country enjoys massive merchandise trade surpluses with every major country except Japan.

Taiwan's surplus with the U.S. was $10

Continued on page 30

TAIWAN

Continued from page 29

billion last year, and on official forecasts it could leap to $15 billion this year.

Some observers feel Taiwan's domestic auto industry is becoming a sacrificial cow to ward off possible protectionist measures in the U.S. Congress and elsewhere.

The liberalization policy is also fueled by consumer pressure groups and free-market economists. Taiwanese consumers have long complained about poor quality and high prices of domestically built cars.

Yale economics professor John Fei presented calculations at a recent National Development Seminar that locally made cars are $1,600 more expensive than their Japanese counterparts, resulting in a net loss to consumers of $250 million a year. He said the local economy would be better off if an earthquake destroyed the vehicle producers.

Government officials present a less apocalyptic view, stressing that competition will bolster Taiwan's bid to become a world auto center. Says CETDC's Mou: "In order to survive, firms will have to expand, import technology and look for foreign markets."

But in comparing the new approach to the previous protectionist policy, Mou says, "The goal is to be part of the international division of labor rather than developing a fully integrated industry. We take a global view."

So do strategic planners in multinational Japanese and American auto companies that are gambling on Taiwan's future.

The past year has seen unprecedented interest in Taiwan, partly because of the government's more relaxed approach and fewer restrictions on auto collaborations, and partly because of the adjustment of Japanese firms to the soaring yen.

Auto executives in Taiwan, noting the rapid progress of South Korea as an auto producer, believe the two Northeast Asian "dragons" — Taiwan and Korea — will gradually become integrated into overall purchasing and production programs of major Japanese companies.

The maneuverings have affected all of Taiwan's auto companies, although each case is different. Following are their strategies.

Yue Loong

Established in 1953, Taiwan's oldest vehicle producer now has the most integrated design and manufacturing capability in the country.

In 1981 Yue Loong opened a new manufacturing and assembly plant on an 865-acre site at San Yi, about 100 kilometers south of Taipei, Taiwan's capital. After further investment, it now has a forging facility, engine line, $27 million body-stamping plant and $25 million paint shop.

Present capacity is 70,000 vehicles a year, but a second phase could boost it to 200,000.

The San Yi plant has ample surrounding area for parts makers to supply Yue Loong on a just-in-time basis. The company also makes commercial vehicles at its old Hsin Tien factory.

Yue Loong spent $50 million to open an engineering center in 1981 at Tao Yuan which is equipped with computer-aided-design tools for product and process development.

The first Yue Loong-designed car is the X101. It will be named the Feeling, which means Flying Antelope in Chinese, and will be launched in October. It will be available as a sedan and hatchback with 1.6-, 1.8- and 2.0-liter engines.

There is discussion that Chrysler might distribute the car in North America, but Yue Loong will not confirm if and when that might happen. There are also rumors that Nissan might sell Yue Loong-built cars in Japan.

However, Nakamura suggests that before Yue Loong can embark on a major export drive it must improve production efficiency and product quality. Its showcase San Yi plant still lacks the automation typical of advanced factories in Japan, Europe and America. The machine shop has fewer than 10 numerically controlled machine tools, no automatic welding machines or robots and few computer-controlled materials-flow systems.

The plant's productivity is about 20 vehicles per employee per year, about the same as the newest South Asia assembly plants such as Proton in Malaysia and Maruti in India, but far below Japanese levels. In addition, the company incorporates 70 percent locally built parts in its vehicles, some of which lack the quality of parts used abroad.

Since Nissan invested $50 million for its 25-percent interest last September (consolidating a long-standing technical collaboration), Yue Loong has revised its strategy. Nissan plans to supply Yue Loong with engines, probably built by its affiliate in Australia, by the beginning of 1987, and local content is expected to be around 50 percent.

The hope is this will revive Yue Loong's sagging market share, which has fallen from 50 percent to 35 percent over the last decade, and will eventually allow exports of vehicles. Yue Loong at one time had exported small volumes of commercial vehicles to South America and the Middle East.

Yue Loong strategic advisor Clement C.C. Yen admits it will be hard to imitate South Korea's success. "We'd have problems exporting to the U.S., so we'll have to look elsewhere," he says.

Ford Lio Ho

Ford adopted a radically different approach than Yue Loong by making substantial investments in a world-class assembly plant with emphasis on quality manufacturing rather than high local content.

The company recently invested $24 million to re-equip its 80,000-square-meter plant at Chungli, 40 kilometers south of Taipei, with the latest production technology. President Auton explains: "It's only justified, as part of a long-term program, to establish we can do quality manufacturing here."

That's been proved. In June a quality-audit team from Ford world headquarters gave Ford Lio Ho's export car the best mark of any car built by Ford worldwide, according to Auton. He attributes that to an investment project geared to boosting quality and, more importantly, a highly educated and diligent work force.

The Ford Lio Ho plant is the most advanced assembly plant in Taiwan. Ninety-four percent of all critical welds are computer controlled and are done by eight robots or specially designed Bosch welders. The paint shop has automatic handling systems and spray guns, and automatic test equipment at the end of the assembly line. The whole process is controlled by a materials-management system, and 180 processes are monitored regularly by statistical process control techniques.

Denton A. Grenke, manufacturing manager, says quality improvement was the guiding principal behind the investments. He says that since 1982 the quality of vehicles produced has increased 400 percent, while productivity is up 70 percent.

However, Grenke, a Canadian who has worked in high-volume car plants, identifies a highly motivated and intelligent staff as the key reason for success. "If I could, I'd take this work force anywhere in the world," he says.

He describes their active participation in quality circles, a disciplined attitude to punctuality, attention to detail and, above all, a keen work ethic.

The workers are a key to what Auton identifies as Ford's reason for increasing its commitment to Taiwan. Labor costs are low — about $3.50 an hour — but more importantly the workers are far more productive than those in other countries. "I think they're among the best in the world," boasts Auton.

The bargain work force is matched by bargain investment expenses. "A major comparative advantage is relatively low capital cost," says Auton. A U.S. executive making automotive electronic components in Taiwan says the cost of capital to fund new projects is 6 percent.

Still, the increasingly competitive environment has hit Ford Lio Ho's domestic sales which have fallen from over 36,000 in 1983 to under 26,000 last year.

Since vehicles supplied to the local market share most of the new assembly technology set up for the export versions, Ford Lio Ho sales director David M. Morgan hopes to capitalize on an improved image for quality. But he admits, "It's very difficult. I expect all the expansion of market to be taken up by imports."

The tough situation in Taiwan is another reason Ford decided to make Lio Ho an export unit. It now has the capacity to make 30,000 export cars a year. Auton says Canadian dealers are enthusiastic about the cars delivered so far; factory managers are given instructions to ship orders as soon as possible.

But prospects for rapid expansion in export sales have been hit by the soaring Japanese yen. For its export cars, Ford Lio Ho is allowed to import all components duty-free. At present almost all parts come in a CKD kit from Japan to be assembled at the sophisticated Chungli plant. In contrast, cars built for the domestic market, which are subject to import tariffs, have 60 percent local content.

To address this problem, Ford Lio Ho is working with local suppliers to build a quality group of subcontractors.

Supply director K.L. Yeh hopes to start local buying of products such as wiring harnesses, seats, plastic molding, glass and trim, and to increase local content on export cars to 30 percent by early next year and 50 percent within two years.

The bottom line is Ford Lio Ho is now losing money after being moderately profitable in the past. Auton says, "The objective is to get out of the red and into the black as soon as possible."

The fact that Ford world headquarters is prepared to meet those losses shows that Taiwan is considered a strategic investment, but is not yet an easy place to make money.

Longer term, Ford might use its Taiwan plant to supply components to other Ford and or Mazda plants.

Ford Lio Ho's engine plant currently ships 13,000 Mazda B-series engines a year to Ford Australia for use in locally built Laser cars. Ford in the U.S. buys wiring harnesses from another Taiwanese firm, Yazaki.

Auton believes Ford might source high-cost labor-intensive items such as compressors and electrical items from Taiwan. There are also rumors that Mazda might use Ford Lio Ho's plant to assemble cars in Taiwan.

Whatever the outcome, the success or failure of Ford Lio Ho will be a critical indicator of Taiwan's potential as a major auto center.

Success would show that Taiwan's diligent workers can give their country a niche in the world automotive business. Failure would show that the government's zealous liberalization makes automaking in Taiwan an unprofitable exercise for the auto giants.

China Motor

Taiwan's third largest automaker, China Motor, accounts for 14 percent of total production.

It shares the same chairperson as Yue Loong, Mrs. Vivian Yen, and until recently was a wholly owned subsidiary of Yue Loong, but with independent management.

Earlier this year Mitsubishi, a technical collaborator, took a 25-percent equity stake.

China Motor and Mitsubishi have a plan that could involve annual exports of 20,000 commercial vehicles. But China Motor president K.K. Hsu, while welcoming the new technology that the tie-up will bring,

TAIWAN'S EXPORTS OF AUTO PRODUCTS

Table 1: Growth of auto exports 1983 - 1985

Year	Value ($ million)	% Annual Growth
1983	311	41
1984	406	31
1985	451	11

Table 2: Major export markets 1983 and 1985 (%)

Country	1983	1985
USA	52.1	57.0
Singapore	3.6	4.1
Nigeria	5.3	3.4
Canada	2.2	3.2
Hong Kong	1.7	3.0
Saudi Arabia	4.4	2.8
Australia	3.4	2.8
Indonesia	2.1	2.3
Japan	1.2	1.6
Malaysia	2.1	1.5
Others	21.9	18.3

Table 3: Major export products (% in 1985)

Product	Value ($ million)	%
Vehicle Accessories	133	29.5
Auto Parts	129	28.6
Motorcycle Parts	75	16.6
Wiring Harnesses	64	14.2
Other Auto Products	25	5.5
Motorcycles	21	4.7
Cars, Trucks & Buses	4	0.9

Source for all tables: Customs Statistics of the Republic of China.

cautions that exports are unlikely before 1989.

Hsu echoes the need to improve product quality and says possible markets for China Motor export vehicles are Turkey, other Middle-Eastern countries and South America.

Sanyang

Local automaker Sanyang has worried established competitors by increasing its market share from 5 percent in 1977 to 11 percent this year.

Owned 14 percent by Honda, Sanyang has mirrored its Japanese partner's world success. Building on a strong cash flow from selling motorcycles and scooters, it markets high-grade cars that are popular with consumers.

The company concentrates on making 1,500cc Civics, and has won market leadership in that class by boosting sales from less than 6,000 in 1977 to nearly 18,000 last year.

It is believed to be investigating the feasibility of supplying components to Honda's U.S. plants.

San-Fu Motors

The Zsa-Zsa Gabor of the Taiwanese industry, San-Fu has influential suitors.

Most significantly, GM reportedly has taken a 25-percent equity stake that is being considered by the Taiwan government for approval.

T.S. Liu, president of Summit Engineering, local distributor for GM trucks, locomotives and Detroit Diesel Allison engines, will only confirm the deal is in the discussion stage.

He says, noting that a GM-team came to Taiwan in January to talk to San-Fu, "GM wants a Taiwan beachhead. It doesn't want to vacate South and East Asia and probably aims to shift its resources from the Philippines (where GM has just closed its plant) to Taiwan."

It is GM's second bid. In the late 1970s GM collaborated with Taiwan Machinery Manufacturing Corp. in a joint-venture company, called Hwa Tung, to make heavy trucks. But its prices proved too high and three years ago Hwa Tung was sold to truckmaker Kuo Zui.

GM's potential new partner has had mixed fortunes the last few years with market share fluctuating from a peak of 11.6 percent in 1977 to a low of 4.1 percent in 1980 and 8.8 percent in the first six months of this year. It makes cars and light trucks.

Liu, speculating that GM's main interest might be sourcing components from Taiwan, says, "GM is already very interested in Taiwan-made parts."

Yeu Tyan

Yeu Tyan progressed from making motor scooters, in collaboration with Italian producer Piaggio, to making up-market sedans, in collaboration with Daihatsu Motor Co. Ltd. and Peugeot S.A.

The company made almost no cars in the 1970s but now has about 8 percent of the Taiwan market.

It recently completed a collaboration with Subaru. Isuzu Motors Ltd. had been interested in Yeu Tyan, but once its U.S. partner, GM, started overtures with San-Fu, plans were quietly dropped.

Kuo Zui

A bus and truck maker that produced only 2,600 vehicles last year, Kuo Zui has attracted the biggest Japanese suitor of all: Toyota.

Last February, Toyota bought 22 percent of Kuo Zui, which was already partly owned by Hino Motors Ltd., itself a Toyota affiliate.

Toyota made a major bid to set up an export-oriented auto plant in Taiwan in the early 1980s. It would have involved annual production of 300,000 cars, half slated for export.

Will cars like Ford Lio Ho's Laser help put Taiwan on the automaking map?

The deal failed to get because of disputes between Toyota and Taiwan's Economics Ministry over local-content requirements and the proportion of exports. (Once it was called off, the government encouraged a less ambitious Ford Lio Ho export project). Also, the proposed Toyota project was so large it threatened other local automakers and suppliers.

In Taiwan's new liberalized climate, Vice Economics Minister Wu Mei-tsun says he will welcome Toyota's latest proposal to make Coronas with 1,800cc and 2,000cc engines.

Toyota is taking its new acquisition seriously. According to a component maker, Toyota has already spent $20 million on carmaking machinery at Kuo Zui.

As a result of these deals and investment programs, Taiwan now has capacity to produce at least 300,000 vehicles for a market that last year absorbed 157,000. Yue Loong alone could supply the entire market, and then some.

No one doubts Taiwan's auto market is set to continue growing at a healthy rate. Throughout its history, Taiwan has enjoyed one of the highest rates of economic growth in the world, averaging almost 10 percent a year into the early '80s.

That growth was accompanied by a major road-building program that increased the length of paved roads from 1,046 kilometers in 1952 to over 16,000 today.

In the past decade, car registrations climbed from 150,000 to over 800,000, commercial vehicles from 120,000 to over 400,000 and motorized two-wheelers from 1.7 million to over 6 million.

Car ownership is only six per 1,000 people, about the same as Brazil but well below Japan and the U.S.

Industry forecasts show demand for cars rising to 150,000 by 1990 and 230,000 by 1995, with trucks reaching 68,000 in 1990 and 87,000 in 1995. Even with that healthy growth in prospect, there is enough capacity today to handle expected demand 10 years hence.

Moreover, foreign automakers are in a better position to start selling cars in Taiwan than Taiwan automakers are to start exporting. In the first five months of 1986 the value of imported sedans was $78 million, 65 percent above last year.

European imports Mercedes-Benz, BMW and Volvo have traditionally been the major foreign-made sellers, but the new auto policy is attracting manufacturers of less-expensive cars made by Lancia, Seat, Opel and others.

European truck and coach builders Volvo, Scania, Mercedes, and MAN are also increasing sales in Taiwan, partly because of the added advantage of the soaring yen against European currencies.

Even importers of U.S. vehicles anticipate rising sales. Chrysler importer Charles S. Yeh hopes to sell 200 to 300 luxury sedans this year compared to typical sales the last few years of 50-80 annually. Relaxed rules on Japanese-designed cars built outside Japan could open the Taiwan market to products such as the U.S.-built Chevrolet Nova and the British Rover Sterling.

Ford Lio Ho Sales Director Morgan predicts total industry imports in Taiwan will increase from 16,000 last year to 25,000 in 1986 — and that is with an import tariff of 60 percent. If the auto policy were pursued to remove most or all protection now enjoyed by domestic makers, Morgan predicts imports could easily capture half the domestic car market.

Local automakers complain that some importers are engaging in predatory pricing and dumping cars on the market to grab market share.

However, IDB Director Hsu says no formal petitions have been filed and legislation exists to ensure fair-trade practices. He argues that, after 30 years of protection, local automakers must adjust: "We cannot force them to rationalize, the only thing we can do is create some pressure."

Hsu hopes that will promote more efficient auto parts manufacture by encouraging mergers and forcing automakers to insist on lower costs and better quality.

The hotly debated issue is whether that may be expecting too much too soon. The removal of restrictions on market entry means there are now many more players.

Insiders say Yue Loong and China Motor, under the same chairperson, might be expected to share suppliers, but they doubt that local affiliates of aggressively competitive firms such as Toyota and Nissan or GM and Ford will agree to share supply sources.

Beyond that are more fundamental problems in the structure of Taiwan's industry.

Taiwan has achieved extraordinary success in boosting exports of auto products (see Table 1, opposite page). CETDC Director Mou attributes this to a balanced development of industrial processes such as forging, plating, plastics and electronics, which has enabled Taiwan's firms to meet market demands quickly.

But as Table 2 indicates, Taiwan is crucially dependent on the U.S. market which is threatened by retaliatory protectionist legislation. And as Table 3 shows most Taiwan auto exports are add-on accessories or spare parts sold in the after market.

Few of Taiwan's auto parts exporters have major OEM contracts. The biggest exception is Taiwan Yazaki which exported over $60 million worth of wiring harnesses last year. But anxieties about the future of local automakers are making other parts manufacturers look overseas.

Says David C. Chang, president of RDC-Spicer, which makes rear axles, propeller shafts and constant-velocity joints: "We have to think of exports because achieving economies of scale is a problem."

Chang's analysis of prospects for Taiwan's parts industry is ambivalent: "I feel design capability is weak here. But in terms of manufacturing technology, Taiwan is already there. It can produce quality parts to international standards with no problems."

The problem is most of Taiwan's estimated 2,000 auto parts firms are family businesses full of entrepreneurial zeal and able to respond quickly to the latest consumer gimmick, but less able to invest in research or expensive production machinery.

Of 373 members of the Taiwan Transportation Vehicle Manufacturers Association, only 17 employ over 500 people, and 259 employ less than 100.

A recent study by the National Science Council found that, on average, Taiwan firms devote just 0.44 percent of sales to r&d, a tiny fraction compared to most companies in the industrialized world.

Taiwan's bid to become an automaking center is based on different foundations than those built by Japan and South Korea, whose industries are characterized by large, integrated trading companies with resources to fund both long-term investment and product development.

However, while it may have liberalized the auto trade, Taiwan's government remains eager to nurture its infant industries with discreet state support. The China External Trade Development Council is pursuing promotion of new trade and investment opportunities. Several Taiwanese auto component firms are currently setting up joint ventures in Indonesia, Mexico and Turkey in an attempt to reduce trade imbalances.

At home, the government is forcing firms to spend more on r&d. Companies will soon be required to devote between 0.5 and 1.5 percent of sales income on r&d, depending on their industry. Those failing to spend their quota will forfeit the difference to the government, which will use the money to fund other r&d.

Will Taiwan become the next South Korea? "The jury is still out," says Ford Lio Ho's Auton. "We'll know in three to five years if it's been able to develop a healthy supply base."

But Hu notes that that all Japanese and U.S. firms show a surprising keenness to become involved in one of the world's most oversupplied markets.

One reason is Taiwan's political and social stability coupled with an extraordinarily strong financial position, with foreign exchange reserves of $35 billion.

Says GM distributor T.S. Liu: "Compared to Korea, which has lots of loans from foreign banks and a political situation that is not stable, the fundamentals are good here."

That is backed by a recent survey by the Geneva-based European Management Forum which found that Taiwan is the most competitive newly industrialized nation, just ahead of Singapore and Hong Kong, and double that of South Korea which is ranked fourth out of nine countries [illegible]

The growth of robots at Nissan

In the 1960s, Japan's Nissan Motor Co. Ltd. launched a program to modernize and expand its production facilities. At the center of this was the introduction of transfer machines and multi-spotwelding machines.

Since the late 1960s, Nissan has increased its use of robots on body assembly lines and steadily developed and improved its automation technology. Today the company has 2,000 robots operating at its domestic plants, including those for final assembly, painting and materials handling.

By introducing robots, Nissan believes it has achieved the following:

- A higher level of manufacturing accuracy and reliability.
- Higher productivity.
- A lighter work load and improved working environment for employees.
- Flexibility to changes in the manufacturing process.

In 1982 Nissan, for the first time, used final assembly robots on the March (Micra) production line in its Murayama plant.

In 1984 the company began automation of the Sunny (Sentra) final assembly line at its Zama plant, which involves 16 robots and 10 special-purpose automated machines.

Operations automated at the Zama plant by introducing the final assembly line for Sunny production include the following:

- Filling fuel tank, radiator, reservoir tank and window-washing fluid container.

Fitting fuel cap, rear doors and rear combination lamps.

- Installing and fitting windshield and rear-window glass.
- Installing battery, front and rear seats, and the spare tire into trunk compartment.
- Mounting tires.
- Adjusting aim of headlight beam.
- Measuring wheel alignment.

In 1985 Nissan began to use two new kinds of robots: free-moving robots and paint-inspection robots.

Equipped with an optical sensor, free-moving robots move along the rail as fast as the conveyor belt without stopping at each manufacturing stage.

Nissan says the laser-equipped paint-inspection robots have raised the consistency and quality of the paint finish on its cars.

During 1985 Nissan completed its introduction of sequential-control systems for automated production equipment at all of its plants.

The systems feature an integrated network of decentralized control units, which allows for easy adaptation to frequent changes of equipment, control-system wiring and programming.

The robots and automation systems helped Nissan introduce flexible manufacturing systems (FMS) that allow production of different car models on a single line and permit model changeovers with minimum retooling. ■

Nissan's Robots

	1st Robot Installed
1969	
1975	50
1977	210
1979	405
1980	540
1981	730
1982	1,000
1983	1,400
1984	1,600
1985	2,000

Perkins diesel for Mexico

John Rogers, commercial director of Perkins Motors, at the company's 13th National Convention in Mazatlan, Mexico, told distributors that Phase IV diesel engines will be launched in Mexico in 1987.

He said this will guarantee the firm's future for the next five years, during which plans for the future will be finalized.

While Phase IV engines will substitute for current Phase II units, Rogers said the latter will be produced one more year, in line with negotiations completed with Perkins Engines Ltd. Over the next term the switch will be to new F-4 and Q-20 units.

Perkins is part of the Dina (Diesel Nacional) complex. At the convention, Humberto Mosconi Castillo, group director, labeled the Perkins affiliate "the most efficient within the Dina complex." The reason: Despite operating at less than 30 percent of installed capacity, Perkins has not sought emergency financing. In 1986 Perkins will show an operating profit, Mosconi Castillo said.

Besides auto engines, Perkins turns out marine, industrial and agricultural units. The new engine is expected to spark sales.

C.P. Camacho, general director of Perkins Motors, revealed negotiations are under way with Perkins Engines Ltd., England, to invest $9.6 million in the Mexican subsidiary. Capitalization would be split 60 percent by Dina and 40 percent by the English home office.

The deal would give Perkins Motors access to developing technology and international markets. Under present capitalization, Dina has a 62 percent interest in the firm, Perkins Motors 19 percent and Nacional Financiera 19 percent.

If negotiations with the British parent firm are completed, Dina would buy out stock held by Nacional Financiera, the Mexican official financial and development institution. ■

— Emil Zubryn

WORLD NEWS BRIEFS

Jetting Jetta

One of the debutantes at this year's Birmingham Motor Show (Oct. 18-26) will be a hotted-up Volkswagen Jetta, which will go on sale in [illegible] spring. The Jetta GT 16V — powered by the same 1.8-liter 139-horsepower 16-valve engine of the popular VW Golf GTI 16V — is said to combine the spaciousness of a sedan with the performance of a supercar and the economy of a family car. Top speed is 130 mph, 0-60 is 8.1 seconds and average mileage is 29 mpg. Standard equipment includes alloy wheels, high-speed low-profile tires, power windows and locks, steel sliding sunroof, cloth sports seats, four-speaker AM/FM cassette stereo and tinted glass. Price will be announced in the spring.

Jetta GT 16V

Mexican sales down

Cesar Flores, president of the Mexican Automotive Industry Association, said 1986 car, truck and bus sales in Mexico will be down about 34 percent from last year — about equal to sales in 1972 and 1973. Flores said he expects car sales of about 190,000 and truck and bus sales of about 80,000 this year. Car sales figures for the first six months of the year were down 36 percent from the year-ago period. The association said 79,056 new cars were sold compared with 123,643 in the same period of 1985. The first-half total was 101,696 in 1984 and 104,408 in 1983.

Jaguar hikes prices

Jaguar Cars Inc., Leonia, N.J., has announced a 3.3-percent average price increase on its '87 models. Prices are as follows: Jaguar XJ-6, $36,300; Vanden Plas special edition sedan, $40,100; XJ-S, sport coupe, $39,700; XJ-S Cabriolet, $44,850.

What price Seven?

Brits who yearn for the new Caterham Super Seven HPC, a resurrected and rejuvenated version of the famed Lotus Seven, will have to pass a driving test before they can buy one. That's right, Caterham Car Sales and Coachworks Ltd., Surrey, England, will insist that customers prove their sports-car skills by taking a special class designed by High Performance Course Ltd. The car is powered by a 1,700-cc version of the Cosworth 16-valve twin-cam engine which pushes ultra-lightweight two-seater from 0-60 mph in about five seconds. The driving course takes two days and includes driving on ordinary roads as well as a race circuit and skid pad. The fee of more than 245 pounds sterling (about $355 in Britain) is refunded on delivery of the car, which will be priced in the 12,000-pound range ($17,400).

The deal is sealed

Sealed Power Corp., Muskegon, Mich., has formed a joint venture with Riken Corp. of Japan to manufacture and market a patented, digitally controlled electro-hydraulic valve. The venture will have exclusive rights to make and distribute the valve to automakers in Japan. Sealed Power developed the valve over the last two years. It's now in production for a major U.S. automaker and is in the advanced testing stage at several other auto manufacturers.

The valve is designed for new automobiles with on-board microprocessors that regulate the automatic transmission. It relays information from the microprocessor to the transmission. It will also be applicable to vehicles' other hydraulic systems, such as power steering and power brakes. The venture companies hope to broaden the valve's application through continued research in electrohydraulic technology. Sealed Power is a manufacturer and distributor of auto parts and components; specialized service tools and equipment; and industrial products for both domestic and international markets.

Audi unveils 80

Also debuting at the Birmingham Show will be Audi's new 80 model (4000 on these shores), due to go on sale in Europe this fall. The 80's features include fully galvanized steel body with 0.29 drag coefficient, Procon-Ten passive safety system which swings away the steering wheel in the event of a head-on collision, Torsen ("torque sensing") differential and a new interior.

Audi 80

U.K. road code

If you're planning a jaunt over to England, the DOT in Jolly Ol' has just the book for you. It's called *On the Road in Great Britain*, and it's a handy-sized, illustrated booklet designed to reduce driving risks for foreign visitors. For a free copy, write: The Department of Transport, Building 3, Victoria Rd., South Ruslip, Middlesex, England.

SALES IN MEXICO

According to the Mexican Automotive Industry Assn.

BY COMPANY	Jan-June '86	Jan-June '85
Nissan Mexicana	20,815	25,264
Renault de Mexico	2,532	16,006
VW de Mexico	24,053	40,680
Chrysler de Mexico	15,188	18,182
Ford Motor Co.	10,120	19,391
[illegible]	8,347	18,100
BY CATEGORY		
Small	43,230	70,607
Compact	26,559	35,748
Luxury	6,703	12,317
Sports	2,563	4,971

REGISTRATIONS IN JAPAN

(JANUARY - AUGUST, 1986)

	Total	'86 vs. '85 (%)	Cars	Trucks & Buses	Share (%)
Toyota	1,161,245	+ 5.2	918,643	242,602	30.6
Nissan	688,454	– 5.3	520,417	168,037	18.2
Mazda	236,081	+ 4.0	127,639	108,442	6.2
Mitsubishi	335,946	– 4.0	99,412	236,534	8.9
Isuzu	114,859	+ 5.6	39,676	75,183	3.0
Honda	332,220	+ 20.8	199,014	133,206	8.8
Daihatsu	319,615	+ 11.6	63,502	256,113	8.4
Fuji Heavy Ind.	201,500	+ 0.8	49,463	152,097	5.3
Hino	25,567	– 2.7	—	25,567	0.7
Suzuki	319,790	+ 1.3	43,773	276,017	8.4
Nissan Diesel	14,102	+ 1.9	—	14,102	0.4
Imported Vehicles	43,276	± 32.5	43,063	213	1.1
TOTAL	3,792,655	+ 3.9	2,104,542	1,688,113	100.0

SOURCE: Toyota Motor Corp.

FACTORY SALES BRAZIL

Cars, Vans, Trucks

	8 mos. 1986	8 mos. 1985
Agrale	1,040	532
Engesa	227	0
Fiat	70,003	50,198
Ford	119,682	100,385
GM	140,725	114,111
Gurgel	1,315	807
Mercedes-Benz	23,660	16,355
Saab-Scania	3,383	2,413
Toyota	2,375	1,475
Volkswagen	231,946	164,755
Volvo	1,887	1,382
Others	112	184
Total Sales	596,360	452,557

ASIA

FROM PAGE 1

tapped natural and human resources.

It is one of the few remaining major unexploited auto markets, and it is poised to be the next to develop rapidly.

In 1985, total car production in South Asia was just over 200,000.

The governments in the region have targeted the auto industry as the key to economic development.

Adding up the official development plans of India, Indonesia, Malaysia and Thailand shows some ambitious projections for production growth between now and 1990: cars up from 209,000 to 389,000, commercial vehicles up from 360,000 to 586,000 and motorized two-wheelers up from 1,678,000 to 3,135,000.

Those targets are unlikely to be met, since the once-vibrant economies of Southeast Asia are slowing down. In the decade between 1973 and 1983, average annual economic growth rates were India, 4 percent; Indonesia, 7 percent; Malaysia, 7.3 percent; and Thailand, 6.9 percent.

This year, there could be a contraction of output in Indonesia and Malaysia, both of which are crucially dependent on exporting commodities that have suffered sharp price declines. Thailand, which is the world's biggest rice exporter, is being hurt by U.S. agricultural policies and India is afflicted with a soaring trade deficit and civil disturbances.

Nonetheless, each country has developed an engineering infrastructure and training facilities, which have given them a pool of skilled labor and the expertise to utilize it.

Moreover, adversity is accelerating the pace of change. South Asian countries can no longer afford large auto import bills. They need to industrialize to generate new jobs and wealth-creating industries to supplement predominantly agricultural economies.

Each of the countries has strict policies to increase the proportion of locally produced components in vehicles. That percentage now varies from an average 20 percent in Malaysia to well over 50 percent in the other countries.

The form of the import substitution policies varies, but the principles are common to all. Industry and government officials prepare a list of components that are "mandatorily" deleted from imported complete-knockdown kits, to enable a protected local producer to make them.

However, the value of imports is still substantial, and it is dominated by Japanese manufacturers. Last year, South Asia was worth $1.3 billion to "Japan Inc."

Although the proportion of direct exports might decline, there can be no doubt that Japanese firms will be key beneficiaries of the growth of South Asia as an auto manufacturing region. The Japanese managed to outbid the European firms that traditionally had dominated South Asia's foreign collaborations.

The two latest audits confirm Japan's position. In the early 1980s, the governments of India and Malaysia were eager to enhance their local industries by promoting a state-owned "national car" project. Both chose Japanese firms — Suzuki for India and Mitsubishi for Malaysia — despite historical ties with the British, Italian and West German auto industries.

How have the Japanese done it?

"Pragmatism and a better appreciation of local markets and aspirations," said Ho Tet Kheong, general manager of Assembly Services, one of Malaysia's biggest auto assemblers. "Japan's trading houses have always understood the need to build up manufacturing; the Europeans have relied much more on just selling their products overseas."

Added Dr. Kosol Surakomiol, general manager of Bangchan General Assembly in Thailand: "The Japanese products are cheaper than the European or American products, their spare parts are more available, and their quality is better."

The major U.S. automakers have recognized that. Most of General Motors' South Asian involvement is through its tie-up with Isuzu. Similarly, Ford relies almost entirely relies in the region on cars designed and built through its Mazda link.

European automakers keep a small niche. Daimler-Benz makes luxury Mercedes-Benz cars throughout the region, and has a substantial truck operation in Indonesia. BMW, Citroen, Peugeot and Rover have South Asian assembly operations for luxury cars.

Equally absent is any substantial intertwining of the local industry in South Asia. In the mid-1970s, there was an attempt to build a "basic utility vehicle" inspired especially by auto firms in the Philippines. An organization called the ASEAN Automotive Federation was set up to persuade each country in Southeast Asia to specialize in producing key components.

Said one executive closely involved with that project: "We were trying to say 'to hell with all the multinationals; Southeast Asia can build its own motor industry.' But we found that national rivalries were too strong and, in the end, Japanese imports were cheaper."

An early prototype of the "ASEAN vehicle" was designed in Indonesia and has been quite successful. The "Kijang" — meaning Antelope — uses mostly Indonesian parts (although none drawn from other ASEAN nations) and a Toyota engine.

The other examples of trade between South Asian nations in the auto field are rare. The Indian truck builder, Telco, made an unsuccessful attempt to set up an associate manufacturing plant in Malaysia, and the Indian scooter manufacturer, Bajaj Auto, sold appreciable numbers of three-wheeled "autorickshaws" to Indonesia.

But, in general, each South Asian country has a very protectionist approach to its auto industry. Import duties are high; cross-border sales are discouraged; and considerable incentives are given to local manufacturers. The results, not surprisingly, are high production costs and high local selling prices for vehicles.

The most likely development, said Ridwan Gunawan, operations director of Federal Motor, Indonesia's assembler of Honda motorcycles, is that firms in different countries making the same product will start interchanging parts to promote scale economies.

That is already beginning in the field of production machinery. Three companies in Thailand — Chao Auto Parts, Sammitr Motor and Thai-Hino — recently won an order to supply $800,000 worth of dies and jigs for Toyota's associate in Indonesia.

AUTOMOTIVE NEWS/ANDREW TANK

A "Kijang," a basic utility vehicle, leads traffic in Jakarta, Indonesia. It uses mostly Indonesian parts and a Toyota engine.

Each S. Asian nation has a bag of problems

By Andrew Tank
STAFF CORRESPONDENT

SINGAPORE — The nations of South Asia face a variety of problems as they attempt to become a force in the worldwide auto industry. Here is a look at the situation in India, Indonesia, Malaysia and Thailand.

India

Until very recently, the Indian auto industry was of interest principally to students of industrial archaeology.

India is a nation with 700 million people and vast needs for road transportation. Yet in 1983, two of its carmakers produced just 45,000 models that were virtually unchanged from those of the 1950s.

Those auto firms used production techniques as antiquated as their products — typical rates of productivity were two cars per employee per year. Some other Indian firms, notably Telco and Bajaj Auto, did modernize and run world-class operations, but even those firms faced massive difficulties.

One major problem is the clout of the state-run railroads. The railroad industry is India's largest industry and largest employer. It has its own minister in the cabinet and its own budget.

Less obvious, but more pervasive, has been a reluctance to permit the growth of a strong automotive industry. India's peculiar blend of Fabian socialism and non-aligned self reliance has created a culture deeply suspicious of big business. It regards car ownership as a luxury to be taxed heavily.

Rahul Bajaj, the Harvard-educated chairman of Bajaj Auto, argues that at the end of the 1960s, the nation missed an opportunity that could have made India as successful an exporter as South Korea is today. He said that in the 1950s and 1960s, Indian engineering developed strongly, but that political crises in the early 1970s set development back by a decade.

The first attempt to bring about change was directed by Sanjay Gandhi, the younger son of the late Prime Minister Indira Gandhi. His private-sector car project, named after the Hindu god Maruti, crashed amid much controversy and debt. It ended in the fall of 1980, just after Sanjay's death.

Almost immediately, India executives were enlisted to start a state-run motor firm. It was established in early 1981 and was called Maruti Udyog. The addition of the Hindi word for industry symbolized a much more professional approach.

Maruti Udyog's success has traumatized India's less-efficient auto makers and has sent almost all of them scurrying overseas to seek technology. The process has been aided greatly by Rajiv Gandhi, the present Indian prime minister. In the two years since his mother's assassination, he has liberalized the Indian economy substantially.

The result is that Indian companies now have agreements with almost all the Japanese manufacturers (as well as a few from Europe) to make the complete range of the latest, foreign-designed cars, commercial vehicles, trucks and motorized two-wheelers.

It is still uncertain if this process will be allowed to continue. Last year, India had a record trade deficit of $6.5 billion. Critics blame the relaxed exchange rules for much of that deficit — with the automotive industry as the largest culprit.

The government has blocked further collaborations. Deals involving Honda, Nissan, Isuzu and Citroen have been held up.

The outcome is tied to internal political wrangles. If Gandhi can maintain his liberal policies, India could capitalize on its vast market and engineering prowess to become a major auto center.

If he cannot, India would slip back again to become a quaint but insignificant backwater.

Indonesia

South Asia's least industrialized country and the world's fifth most populous could be a surprise new entrant in the world auto industry.

It has a rapidly growing market of 162 million people, vast unexploited territory and a unified, stable political system.

At present, the economy is suffering acutely from the fall in oil prices, since oil accounts for 75 percent of foreign exchange earnings. But that crisis is also prompting industrialists and the government to step up the development of manufacturing industries, with the auto industry a high priority.

Such intentions are not pipe dreams. Ten years ago, the Indonesian government decided to start an aircraft industry, and many experts from the industrialized world scoffed.

Today, Indonesia makes helicopters and commuter aircraft in collaboration with major European and American firms and is embarking on a venture with two of the world's leading aircraft firms — Boeing and Messerschmitt-Bolklow-Blohm. Its aircraft industry employs 13,000 people and aircraft-engine firms are offering to produce parts in Indonesia.

Soebronto Laras, chairman of the Indonesian vehicle manufacturers' association, believes that his company could soon begin exporting Suzuki-designed vehicles and that annual production could rise from 140,000 now to 600,000 by 1995.

Ridwan Gunawan, vice chairman of the motorcycle manufacturers association, said that in the medium term, Indonesia is the most likely South Asian country to emerge as a major exporter of vehicles. He said its local market is much larger than Malaysia's and its industrial policy is more stable than India's.

see SITUATION, page 34

AUTO PRODUCTION IN SOUTH ASIA, 1985

	Cars	Commercial vehicles	Motorized 2-wheelers
India	100,000	150,000	1,070,000
Indonesia	24,200	115,240	226,790
Malaysia	61,200	37,300	173,100
Thailand	23,880	57,930	206,940

Sources: Association of Indian Automobile Manufacturers; Association of Makers & Motorcycle with agents, assemblers and collaborators of Indonesia; Automotive Federation of Malaysia; Thailand's Ministry of Industry

JAPANESE EXPORTS OF AUTO PRODUCTS TO SOUTH ASIA, 1985

	Cars[2]	In millions of dollars[1] Commercial vehicles[2]	Parts[2]
India	100	35	134
Indonesia	72	81	135
Malaysia	222	107	102
Thailand	25	192	104

Notes: 1: U.S. dollar converted at the average 1985 exchange rate of 235 yen.
2: Wholly completely knocked down kits.
3: Including engines, other components and spare parts.
Source: Japan Trade Organization

SITUATION

FROM PAGE 33

One field in which Indonesia might make a breakthrough is motorbikes. It has the capacity to make one million per year and the local market takes only 250,000.

Aghmad Safiun, vice chairman of the auto parts manufacturers association, admitted that locally made parts can be 40 percent more expensive than they would be in the world market. But he said that prices will fall as local suppliers generate economies of scale. That will give parts makers a chance to begin substantial exports by the mid-1990s, he said.

The government is backing that up with an order that most vehicles must have 100 percent local content by 1990. Few expect that ambitious target to be met so soon, but once it is, Indonesia will be in a good position to supply rugged vehicles suited for the poor roads in the world's developing nations.

Malaysia

The boldest attempt to set up an export-oriented auto industry was launched last fall by Malaysian Prime Minister Dr. Mahathir Mohamad, when he unveiled the Saga sedan, built by Proton.

Proton — 70 percent owned by Heavy Industries Corp. of Malaysia and 30 percent owned by Mitsubishi Motors Corp. and Mitsubishi Corp. — has built a $200 million plant. It is said to be the biggest and most modern in South Asia.

The snag is a lack of demand. When Proton was conceived, government planners were forecasting a domestic car market of 220,000 a year by 1995. But falling commodity prices, coupled with a large existing car population, led to a 34 percent sales decline to just 71,300 vehicles in 1985.

Proton's capacity is 80,000 cars a year, and it could make a lot more. According to Dato Wan Nik Bin Ismail, Proton executive director, the break-even point is 67,000 cars a year. So Proton is accelerating its export plans.

Large-volume exports to the industrialized world are unlikely until the end of the decade. Wan Nik admitted that 29 to 32 months of engineering work are needed to make the Saga meet American and European specifications. But he hopes to start exporting to Bangladesh, Brunei, Hong Kong, Pakistan and Sri Lanka this year.

The hotly contested question in Malaysia is whether the government can continue to afford lavish subsidies to Proton during a period of economic diversity. Proton is exempt from import duties and receives other special benefits.

Malaysia has only 15 million people, and after two decades of rapid economic growth, it now faces its worst economic crisis since independence. The crisis is due to collapsing prices for all its major exports — oil, rubber, tin, palm oil and semi-conductors.

Said Ho Tet Kheong, general manager of Assembly Services, the largest private sector auto maker, "The Malaysian motor industry was set up by the British and had a trading mentality, not a manufacturing mentality. Proton was the first sign of a change in that mentality. It was a noble concept to force the pace of change."

However, in practice, Proton is antagonizing the rest of the Malaysian auto industry.

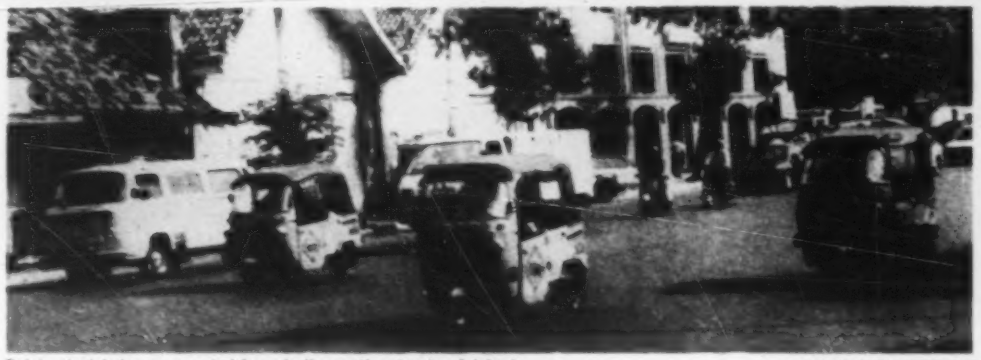
Says Paul Low Seng Kuan: "The rationale behind the Proton project was to make a viable car industry by eliminating models and concentrating resources. Now, Proton is more worried about making profits than ensuring a viable parts industry."

Low is president of the auto parts manufacturers association, which advised its members not to sign a restrictively worded supply agreement with Proton.

Zulkifli Isahak, honorary secretary of the Automotive Federation of Malaysia, questioned whether starting a full-fledged auto industry makes sense for a developing country such as Malaysia. He said it could leave the government with heavy bills for years to come.

There is one intriguing potential "white knight." Executives from Chrysler Corp. — which owns 24 percent of Mitsubishi Motors, Proton's Japanese partner — have made regular visits to Proton's plant.

Said Wan Nik: "We have been in contact with Chrysler. Their intention was to buy our car to replace their subcompact Omni. The two big problems are the technical problems and the pricing problems. But it's still open."



Bajaj autorickshaws exported from India, on the streets of Jakarta.

AUTOMOTIVE NEWS/ANDREW TANK

Thailand

The Thai government has the same basic ambitions as other governments in South Asia: to promote a small number of viable producers. But it is depending on gentle nudging and persuasion rather than grandiose directives or state-lead initiatives.

Its promotional Board of Investment has invited foreign producers to submit proposals to make engines for motorcycles and one-ton pickup trucks, which account for the bulk of demand. The goal is to increase the percentage of locally made parts and persuade marginal players to leave the market, allowing the remainder to grow.

Observers are skeptical. Said Kavee Vasuvat, vice president of Siam Motors Co., "Rationalization is still far away because the Thais like lots of choice."

So it seems unlikely that Thailand will become an exporter of vehicles in the near future.

However the local market is sizable, and European firms are doing relatively well. The local assemblers of BMW, Citroen, Peugeot and Volvo report that production is increasing as a result of the rising yen, which is putting pressure on the assemblers of Japanese vehicles.

But auto components is the area in which Thailand could become important.

The Board of Investment is eager to promote the benefits of Thailand's low-cost, highly skilled workforce. Board members have visited Detroit to talk with procurement executives from the Big Three U.S. auto makers.

Chackchai Panichapat, the board's assistant general saectreary, said Chrysler has shown interest in potential purchases of such labor-intensive items as wiring harnesses.

So far, few foreign auto firms have set up operations in Thailand. But the example of Fuji Serina Valve Co., which is 51 percent owned by TRW, of the United States, shows the potential.

The company, based near Bangkok, Thailand's capital, is incrasing production of engine valves to 2.5 million a year to supply the European aftermarket.

Said David N. LaForest, Fuji Serina managing director, "Customers in Europe were given a 10-15 percent price reduction because of moving the business to Thailand."

The chief reason is labor cost of 60 cents an hour, including fringe benefits.

Chackchai said, "We have enough skilled labor, but we lack investment, technology and a market. Labor is 20 times cheaper here than in the United States. . . We need to create jobs, so we are trying to promote industries that are labor-intensive and export-oriented."

That refrain is heard throughout South Asia, as governments embark on an increasingly tough battle for a shrinking pool of foreign investment. The message is simple: "Large family to support. Will work long hours for low wages. Foreigners' help welcome. Profits guaranteed. Please invest generously."

All South Asian nations face acute short-term economic distress coupled with long-term population pressures. The combination of global recession, the debt crisis and more profitable investment opportunities in the richer countries make competition intense.

All the nations offer low wages and other concessions, but those benefits must be weighhed against special hardships and difficulties.

As a senior diplomat put it: "You must always remember that out here, you're doing business in the jungle. Lots of things you'd take for granted back home just don't work here."

He referred not just to the unreliable phone system, the expensive raw materials and the inadequate utilities, but — more imporant — the different institutional framework. Although governments are tackling the problems, perplexing regulations persist, byzantine bureaucracies still do interfere and corruption is far from eradicated.

Ford's Telstar, made at a joint Ford-Mazda factory in Hiroshima, Japan.

AUTOMOTIVE NEWS/ANDREW TANK

South Asia has some strong auto firms as base for growth

By Andrew Tank
STAFF CORRESPONDENT

SINGAPORE — How soon will South Asia have world-beating firms? Are there any Hyundais about to emerge? How soon could this happen?

The answers lie as much in developments elsewhere in the world auto industry as in trends in the region itself.

According to Ho Tet Kheong, further automation of the U.S. industry could alter the picture radically. "If Saturn succeeds, this whole region will be ignored," he said. He is general manager of Assembly Services, one of Malaysia's largest auto assemblers.

That is probably an exaggeration, but it is clear that the future of South Asia will be tied to international cost considerations. A continued strong yen would encourage Japanese firms to subcontract more work. But the local market in South Asia will generate some internationally important enterprises.

Companies to watch include:

Telco: Telco is India's biggest truck maker. It was set up in the 1950s with technical aid from Daimler-Benz and with management drawn principally from General Motors (which was expelled from India in 1953). Telco is a well-managed auto firm.

It has exported trucks and buses to 56 countries in the Middle East, Africa and Asia and had record export sales of $50 million in 1984. Its basic product is rugged 12-ton truck chassis, 4,000 of which were sold outside India each year in the early 1980s before the world truck slump.

Telco recently introduced a 4.8-ton vehicle for use as a minibus or van. It is eager to help other developing countries set up their own manufacturing operations.

Said executive director A.N. Maira: "We see the export future as good since developing countries must develop their manufacturing capabilities to offset falling commodity prices."

Proton: Proton produces Malaysia's "national car," which must be exported in substantial volume if the project is to be financially viable.

At present, Proton is making 1.3-liter and 1.5-liter sedans that are virtually identical to the Mitsubishi Lancer. Fifty-eight percent of the value of the car is imported from Japan, but Proton hopes it will be virtually 100 percent Malaysian-built by 1990.

Proton has studied the British market, and the right-hand-drive car probably will make its European debut there. In the longer term, Proton hopes to export to the United States.

Bajaj Auto: Bajaj Auto is the world's third largest manufacturer of motor scooters, after Honda of Japan and Piaggio of Italy. The company is in the midst of a $130 million investment to boost annual output from 450,000 vehicles to 750,000 by 1988.

Chairman Rahul Bajaj explained his strategy: "To retain leadership in India over the next three years; to improve our competitiveness against the Japanese; and, by 1990, to make a specific marketing drive. By the mid-1990s, we expect to export 15-20 percent of our production."

That implies exports of 150,000 two-wheelers a year, worth about $70 million. Bajaj Auto now exports to developing nations, but its bid to enter the U.S. and European markets was thwarted by lawsuits filed by Piaggio, its old collaborator.

Maruti Udyog: India's biggest auto maker has such a long waiting list for its 800-cc Suzuki-designed vehicles that exports are not a priority. But managing director R.C. Bhargava is eager to export to provide an independent indicator of performance.

He hopes to capitalize on India's close ties with the Eastern Bloc countries and hopes to sign a deal to export some 25,000 cars to Hungary. Marati Udyog also is eying neighboring countries as a potential market.

Goodyear (Indonesia): The largest tire maker in Indonesia is also a sizable exporter.

Last year, Goodyear (Indonesia) sold almost $7 million worth of steel-belted radials to Australia and sold tires for construction vehicles to the Soviet Union.

Sjahfiri Alim, president-director, admits that it will be difficult to increase exports, but he is investigating the possibility of exporting to China.

Standard Motors: Standard Motors is a specialist Indian firm which collaborates with Britain's Rover Cars. In the early 1980s, it bought an old 2.5-liter diesel engine assembly line from Austin Rover. Most passengers in London taxis have ridden in a vehicle powered by one of those engines because Standard supplies about 600 a year to Carbodies, the specialist British cab builder.

More recently, Standard Motors entered into a venture to make a version of the Rover 2000 sedan suited for Indian conditions.

Like Maruti, Standard has plenty of orders at home, but the new sedan could be an export product in the future.

A present, none of the companies mentioned above has the international marketing clout to make a major splash in the world's biggest auto markets. And their hopes of making the Big Time will be postponed by the current recession.

Safety group asks NHTSA to recall 2¼ million J-cars

WASHINGTON — The Center for Auto Safety has asked NHTSA to recall some 2¼ million 1982-86 General Motors J-cars for alleged sudden acceleration problems.

Last February, the agency closed its investigation and — disagreeing with the center — denied that the problem could be caused by failure of a coolant sensor.

But the center said that a Virginia engineering firm, Technology Management Associates, disabled the coolant sensor on a 1985 Chevrolet Cavalier, thereby inducing the car to jump two curbs. The center said another car of the same model did the same thing last Aug. 31 in Scranton, Pa., when it hit and killed someone.

The center also said that when NHTSA ended its probe, it ignored a letter from GM saying that it has provided replacements for some 200,000 coolant sensors for those J-cars. That indicated a 10 percent failure rate, the center said.

In addition to the Cavalier, the GM J-cars are the Pontiac Sunbird, Oldsmobile Firenza, Buick Skyhawk and Cadillac Cimarron.

Mazda extends gasket warranty

WASHINGTON — Mazda has extended its reimbursement program for head gasket repairs on its 1979-82 626-series cars and 1979-84 B-2000 pickup trucks though Dec. 31.

The Center for Auto Safety had charged that Mazda's informal warranty extension did not provide adequate public notice. The center also criticized Mazda for requiring customers to waive their legal rights when the repairs were made.

Mazda revised the legal language to say that the customer acknowledges payment in full for fixing the vehicle and out-of-pocket expenses for the particular instance only.

Under the original program, which ran from Feb. 14 to May 31, Mazda reimbursed owners for certain head gasket repairs made prior to Feb. 28.

Mazda then extended the warranty coverage to five years or 60,000 miles. That continues in effect.

The Center for Auto Safety wanted Mazda to extend the warranty to six years or 60,000 miles and to advertise it nationwide.

GM recalling trucks and buses to fix potential tire problems

DETROIT — General Motors is recalling 600 1985 trucks and small school buses built on Chevrolet and GMC P30/35 chassis with I-beam front axles and 16-inch wheels. GM is telling owners to have dealers replace the wheels and tires.

The company said that "during certain maneuvers, the end of the tie rod in the front suspension could touch the inside tire wall, causing grooving of the tire." The tire eventually could fail under such stress, the company added.

GM said it is not aware of any incidents of tire failure as a result of the condition.

AUCTION DATES

American Motors

Sept. 30 — High Point Auto Auction, High Point, N.C.

Oct. 1 — Columbus Fair Auto Auction, Columbus, Ohio, and Kansas City Auto Auction, Kansas City, Mo.

Oct. 2 — Corry Auto Auction, Corry, Pa.; Minneapolis Northstar Auto Auction, Shakopee, Minn.; and Evansville Auto Auction, Evansville, Ind.

Oct. 7 — Aptco Auto Auction, Taylor, Mich., and D-A Auto Auction, New Stanton, Pa.

Chrysler Corp.

Sept. 30 — Hatfield Auto Auction, Hatfield, Pa.; Aptco Auto Auction, Taylor, Mich.; and Nu-CarPrep System, Santa Fe Springs, Calif.

Oct. 1 — Sand Mountain Auto Auction, Boaz, Ala., and Minneapolis Auto Auction, Plymouth, Minn.

Oct. 2 — Clanton's Auto Auction, Darlington, S.C., and Northway Exchange, Clifton Park, N.Y.

Oct. 7 — Arena Auto Auction, Chicago; Metro Auto Auction of Kansas City, Lee's Summit, Mo.; Golden Gate Auto Auction, Fremont, Calif.; and Florida Auto Auction of Orlando, Ocoee, Fla.

Ford Motor Co.

Sept. 30 — Harrisonburg Auto Auction, Harrisonburg, Va., and Indianapolis Auto Auction, Indianapolis

Oct. 1 — Metro Auto Auction of Kansas City, Lee's Summit, Mo., and Minneapolis Northstar Auto Auction, Shakopee, Minn.

Oct. 2 — Nashville Auto Auction, Nashville, Tenn.

General Motors

Oct. 1 — Atlanta Auto Auction, Red Oak, Ga.

Oct. 2 — Ohio Auto Auction, Columbus, Ohio

Oct. 7 — Dallas Auto Auction, Dallas, Tex.

Used Car Sales
Auction Averages

September to date	$5,209
Month ago	$5,237
Year ago	$4,883

Model Breakdown
Auction Averages

	SEP 1986	AUG 1986	JUL 1986
1986	$11,880	$12,136	$12,574
1985	$8,488	$8,520	$8,522
1984	$6,223	$6,242	$6,259
1983	$5,473	$5,502	$5,501
1982	$4,276	$4,337	$4,358
1981	$3,351	$3,388	$3,395
1980	$2,483	$2,505	$2,528
1979	$2,115	$2,145	$2,164
Overall Average	$5,209	$5,237	$5,196

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OUTLOOK

FROM PAGE 1

They will examine their product lines in various segments and determine the best way to obtain the capacity for those products — through domestic production or through importation.

"What they are saying is, 'Let's have an orderly retreat from production capacity and fixed costs,'" Hammond said. "They are cutting costs more in line with their market shares."

General Motors, for example, has said it will close three assembly plants by 1990. It also has scaled back or postponed new-car programs. Ford Motor Co., which will get its small cars from Taiwan and Mexico, could close an assembly plant. Other plants may be cut back to one shift, Hammond said.

The domestics already are retreating almost entirely from domestic production of subcompacts. Hammond said if GM's Saturn plant does not reach 500,000 units per year by 1990, which it probably will not, then North American-sourced domestic subcompact capacity could drop by 1.3 million units a year to roughly 1.6 million units a year.

However, the domestics will not lose market share because they will sell more subcompacts from their overseas affiliates and from joint-venture projects.

Hammond said the strategy makes business sense because the automakers incur no facility or start-up cost and little product development cost. Profits are virtually guaranteed on each unit. At the same time, the Japanese and South Korean automaking partners of the domestics benefit through higher sales volume.

While the domestics back away from increased production, the Japanese will shift product mix away from subcompacts, the segment which is expected to have the most overcapacity. Instead, they will use the capacity to produce throughout other market segments.

How aggressively they will shift product mix remains to be seen.

AUTOMOTIVE NEWS WORLD OUTLOOK

Generated by Data Resources Inc.

(In Millions)

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
NEW CAR REGISTRATIONS								
Total Western Europe*	10,101	10,886	11,081	11,084	10,570	11,191	11,599	11,726
Germany	2,384	2,379	2,436	2,469	2,661	2,617	2,713	2,761
France	1,708	1,788	1,900	1,995	1,953	1,995	2,012	2,046
United Kingdom	1,758	1,752	1,800	1,780	1,775	1,769	1,826	1,864
Italy	1,638	1,748	1,811	1,795	1,764	1,728	1,796	1,810
Total U.S.	10,383	11,043	10,480	10,899	11,200	11,360	11,688	11,860
Asia-Pacific*	1,137	1,189	1,228	1,271	1,298	1,371	1,438	1,502
Japan	3,086	3,164	3,137	3,175	3,299	3,311	3,370	3,328
Total Africa-Mideast	1,342	1,177	820	816	835	874	902	933
Total Latin America*	1,309	1,416	1,494	1,561	1,304	1,520	1,699	1,717
Total Eastern Bloc	2,124	2,176	2,298	2,342	2,322	2,427	2,511	2,599
CAR PRODUCTION								
Total Western Europe*	10,723	11,284	11,518	11,711	11,686	11,988	12,386	12,472
Germany	3,798	4,167	4,236	4,195	4,161	4,162	4,316	4,378
France	2,713	2,832	2,742	2,913	2,838	2,953	2,999	3,038
United Kingdom	988	1,048	1,088	1,088	1,023	1,066	1,143	1,154
Italy	1,439	1,389	1,567	1,466	1,473	1,537	1,574	1,574
Total North American	8,840	9,259	8,889	8,542	8,392	8,846	8,981	9,148
Asia-Pacific*	923	1,038	1,285	1,388	1,575	1,745	1,855	1,937
Japan	7,873	7,847	7,639	7,889	7,877	7,998	8,061	8,070
Total Latin America*	1,098	1,174	1,252	1,389	1,588	1,657	1,799	1,929
Mexico	245	297	215	270	340	386	417	463
NEW TRUCK REGISTRATIONS								
Western Europe**	1,117	1,216	1,270	1,306	1,298	1,321	1,336	1,369
U.S.	3,931	4,520	4,869	4,540	4,680	4,770	4,900	4,980
TRUCK PRODUCTION								
Western Europe**	1,224	1,290	1,447	1,476	1,472	1,507	1,517	1,549
North America	3,969	4,325	4,177	4,816	4,636	4,699	4,636	4,721

*Includes Germany, France, United Kingdom, Italy, Netherlands, Belgium, Denmark, Ireland, Greece, Sweden, Norway, Finland, Switzerland, Austria, Spain and Portugal.
**Includes Taiwan, South Korea, Pakistan, Malaysia, India, Australia and New Zealand but excludes Japan, which is listed separately.
***Includes Germany, France, United Kingdom, Italy, Spain, Sweden, Netherlands, Belgium, Denmark, Switzerland and Austria.
****Latin America includes Mexico, Brazil and Argentina.

The Japanese and South Koreans plan to produce 1.4 million units — mostly subcompacts — in North America by 1990, according to the World Outlook. Hammond said the subcompact capacity is excessive, given the trend away from subcompacts.

Hammond suggests the subcompact market be left to the South Koreans, Japanese transplants and the captive imports. The Japanese then should shift 330,000 units of imports from the subcompact segment to other market segments, he said.

Some could go to the compact segment, though not the majority because the domestics plan to defend the market aggressively, Hammond said.

The sporty segment could absorb more Japanese capacity because the domestics appear to be backing away from the market. GM has postponed its program to replace Chevrolet Camaro and Pontiac Firebird, and Chrysler will discontinue Laser, leaving room in the segment for the Japanese.

Hammond said the most fertile ground for the Japanese is the mid-size market, since they have only 5 percent of the sales there and, again, the domestics appear to be backing away from the market. GM is scaling back or stretching out plans for its GM10 program, its major mid-size product program. The future of the Chrysler E-body also is in doubt, Hammond said.

At the same time, the mid-size market segment likely will benefit most from changing demographics — baby boomers graduating to larger, higher-line vehicles.

In both the sporty and mid-size segments, the Japanese have no North American capacity planned, so imports could fill the niches.

If the Japanese follow the recommendation, they would enjoy higher profits and increased market share in all segments, Hammond said.

The strategy of the domestic automakers will position them for good financial performance during troubled times.

However, Hammond acknowledges that the Japanese may not pursue the product mix shift quickly enough to head off overcapacity, which could induce a price war and financial losses.

FORECASTS

FROM PAGE 1

boost output by 109,536 units, and 72,884 of that increase will come from Honda of American Manufacturing Co., New United Motor Manufacturing Inc. (General Motors-Toyota) and Nissan Motor Manufacturing Corp. U.S.A.

Of the U.S. Big Three, Ford Motor Co. anticipates a strong fourth-quarter gain, probably as a result of greater Taurus/Sable output, and Chrysler Motors Corp. also charts an advance. GM production is expected to decline, and so is output for American Motors and Volkswagen of America.

The fourth-quarter schedule of 2,079,620 cars is 23.12 percent more than the latest third-quarter estimate of 1,689,135.

Ann Knight, auto analyst for Paine Webber, said fourth-quarter production will rise as new sales incentives are offered by the domestic automakers. She said the quarter's output may end up higher than the manufacturers are estimating.

Maryann Keller, auto analyst for Furman Selz Mager Dietz & Birney, looks for an increase as consumers purchase new cars before the sales-tax deduction dies at the end of the year under the new tax law. Another incentive for late-1986 purchases is the phase-down of the interest deduction on new cars.

New models will contribute to the higher production for Honda, NUMMI and Nissan. Honda has added production of the Civic to its Marysville, Ohio, plant; NUMMI now is building cars for Toyota as well as for Chevrolet; and Nissan has added the four-door Sentra at its plant in Smyrna, Tenn.

Honda's fourth-quarter target of 75,695 cars is up 132.73 percent from 1985's 32,525; NUMMI's 51,000 is 77.42 percent more than last year's 28,745; and Nissan's 26,645 is 38.87 percent above 1985's 19,186.

Mid-September sales set record

By Louise Kertesz
AUTOMOTIVE NEWS STAFF REPORTER

With incentives by several automakers in full swing, mid-September domestic new-car sales topped the record for the period set last year.

The Sept. 11-20 total for the seven U.S. manufacturers was 294,636, up 1.7 percent from the year-ago period's 289,582.

There were nine selling days in the period both this year and last.

But mid-September sales dipped 20.1 percent below the 368,674 for Sept. 1-10, which was the first full 10-day period of the current incentives offered by General Motors, Ford Motor Co., Chrysler Motors and American Motors.

The early-September total — the highest for the first 10 days of any month — had one less selling day than the Sept. 11-20 span.

Although it had no special financing offers, Honda still led the pack in rate of increase with a 60 percent year-to-year gain.

Chrysler Motors, with 2.4 annual-percentage-rate financing, reported that its car sales, including imports, set a record for any mid-month period in the company's history.

Counting only domestic-car sales, Chrysler's total of 47,666 was up 29.3 percent from last year.

Despite its 2.9 percent APR incentive, General Motors eked out a mere 0.20 percent increase over the year-ago period. But that was enough to set a GM record for mid-September.

Cadillac said its mid-September sales set a record for the period. They were 33.5 percent better than the year-ago period's and marked the third consecutive 10-day sales record.

Ford also has 2.9 percent financing, but its sales declined 7.5 percent from last year.

AMC, with a zero financing rate, reported a 29 percent drop from the year-ago period. AMC said, however, that its mid-September sales were 84 percent higher than in mid-August.

Also reporting declines were Volkswagen, down 18.7 percent, and Nissan, down 16.1 percent.

DOMESTIC SALES

	Sept. 11-20, 1986	Sept. 11-20, 1985
Renault		
Alliance-Encore	2,322†	3,225†
AMC	256†	400†
AMERICAN MOTORS	2,580	3,625
Chrysler	16,459	13,686
Plymouth	12,884	8,725
Dodge	18,324	13,463
CHRYSLER CORP.	47,666	36,874
Ford	51,391	55,400
Mercury	16,888	21,458
Lincoln	6,945	6,593
FORD MOTOR CO.	77,224	83,451
Buick	23,018	39,087
Cadillac	13,492	10,103
Chevrolet	53,392	49,196
Oldsmobile	39,952	37,084
Pontiac	27,880	30,769
GENERAL MOTORS	157,534	157,219
VOLKSWAGEN	2,087	2,568
HONDA	5,589	3,489
NISSAN	1,988	2,377
U.S. INDUSTRY TOTAL	294,636	289,582

†—Estimate

ROVER

FROM PAGE 1

of sales and marketing director Trevor Taylor, whose job is believed to be in jeopardy. He is on vacation.

In the United States, Raymond A. Ketchledge, president of Austin Rover Cars of North America, said the changes would have no effect on his company's operation. ARCONA plans to introduce its Sterling in January, and Ketchledge said everything is going according to schedule.

Musgrove's ouster had been widely anticipated after Day, the former head of British Shipbuilders, arrived at Rover Group in May as the hand-picked choice of Prime Minister Margaret Thatcher.

The heads of Rover Group's car and commercial vehicle divisions, Ray Horrocks and David Andrews, left the government-controlled company shortly after Day was installed. The latest changes complete an overhaul of Austin Rover personnel.

Under the reorganization, Snowdon's product planning job will not be filled. The engineering and design staff will report directly to the chairman, according to an Austin Rover spokesman.

"They've been in a box for a long time and existing management wasn't finding a way out," said analyst John Wormald of Booz, Allen's London office. "But what is Day going to do after the clean sweep?"

Day is scheduled to present a Rover corporate plan to the government by the end of the year. A key element is expected to be further collaboration with Honda of Japan.

One outcome could be use of Rover Group's assembly plant at Cowley by the Japanese company for production of Honda-badged cars for Europe. The deal would probably call for Honda to take an equity interest in Rover or for establishment of a joint-venture company.

Mercedes issues recall

MONTVALE, N.J. — Mercedes-Benz of North America is recalling 1,044 1986 190-E sedans with the 16-valve 2.3-liter engine to replace an electronic control unit that may cause excessive emissions.

PRODUCTION

U.S. auto output rises

By Kelley Barbaglia
AUTOMOTIVE NEWS STAFF REPORTER

Auto production rose last week despite the closing of three General Motors plants because of an engine-related parts shortage and the closing of one Ford Motor Co. plant because of a parts problem.

Targeted output of 157,907 cars last week was 7.17 percent more than the previous week's 147,341 and 6.96 percent below the year-ago week's 169,716.

So far this year, 5,880,503 cars have been assembled, 5.04 percent below the 6,192,891 completed last year at this point.

Last week's scheduled production was split as follows: GM, 54.49; Ford, 20.58 percent; Chrysler Motors, 15.77 percent; Honda of America Manufacturing Inc., 3.42 percent; New United Motor Manufacturing Inc., 1.90 percent; Nissan Motor Manufacturing Corp. U.S.A., 1.49 percent; Volkswagen of America, 1.27 percent; and American Motors, 1.08.

Because of the parts shortage, GM extended the downtime at its Tarrytown, N.Y., plant, affecting 4,380 workers, and also shut down its Framingham, Mass. (3,620 workers), and its Oklahoma City (5,800 workers) plants. All three plants assemble the A-body cars.

Production of the Ford Thunderbird and Mercury Cougar models at the Lorain, Ohio, plant was halted last week because of a parts problem. About 2,000 workers will be laid-off until the situation is remedied.

Ford's Wixom, Mich. plant is slated for overtime Saturday (Sept. 27).

Chrysler's Belvidere, Ill., and St. Louis (No. 2) plants are scheduled for Saturday overtime. Those plants and the Newark, Del., plant are scheduled for daily overtime this week (Sept. 29).

U.S. truck production up

Last week's scheduled domestic truck production of 78,494 was 3.78 percent more than the previous week's 75,638 and 7.91 percent more than the year-ago week's 72,738.

Year-to-date, 2,684,444 trucks have been assembled, 3.95 percent more than the 2,582,389 completed last year at this time.

General Motors' heavy-duty truck plant in Pontiac, Mich., resumed output last week (Sept. 22). The plant had been down for one week for inventory adjustment, idling 1,400 workers.

The following GM plants are slated for overtime Saturday (Sept. 27): Morain, Ohio; Flint, Mich.; St. Louis; and Janesville, Wis.

No Saturday overtime was scheduled at Ford plants.

Canadian car output dives

Downtime at two General Motors plants and a production cut at a third reduced Canadian auto output last week.

Scheduled assembly of 14,175 cars dipped 40.01 percent from the previous week's 23,627 and 28.74 percent from the year-ago week's 19,891.

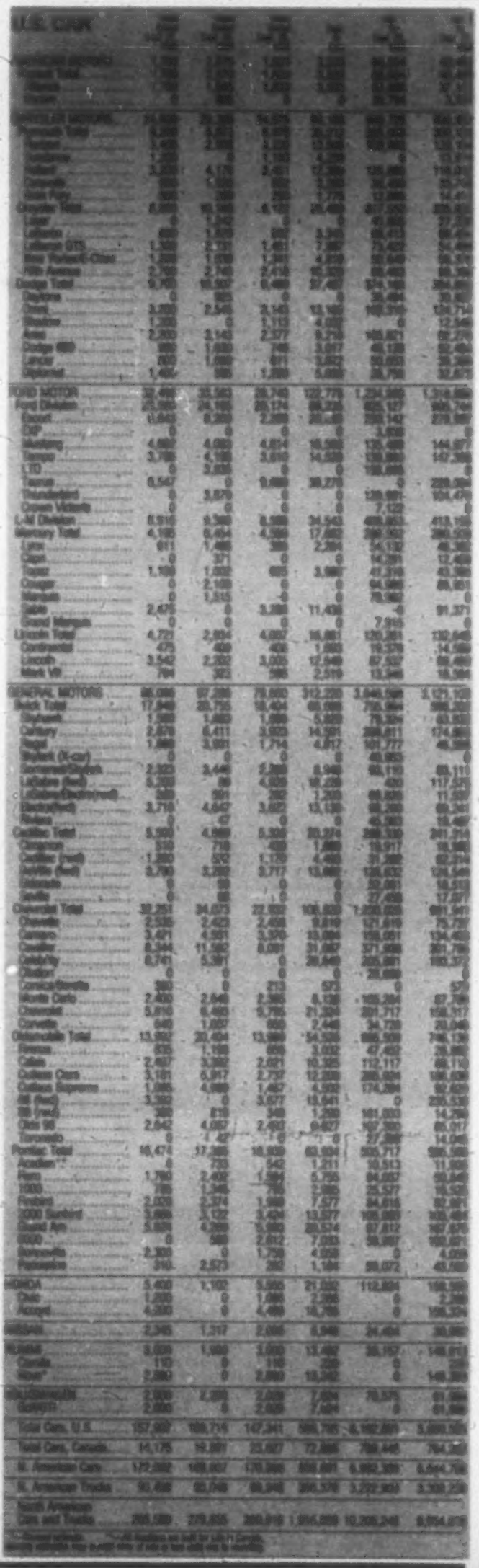
General Motors' Ste. Therese, Quebec, plant was idle last week (Sept. 22) for inventory adjustment. The plant is expected to resume output today (Sept. 29).

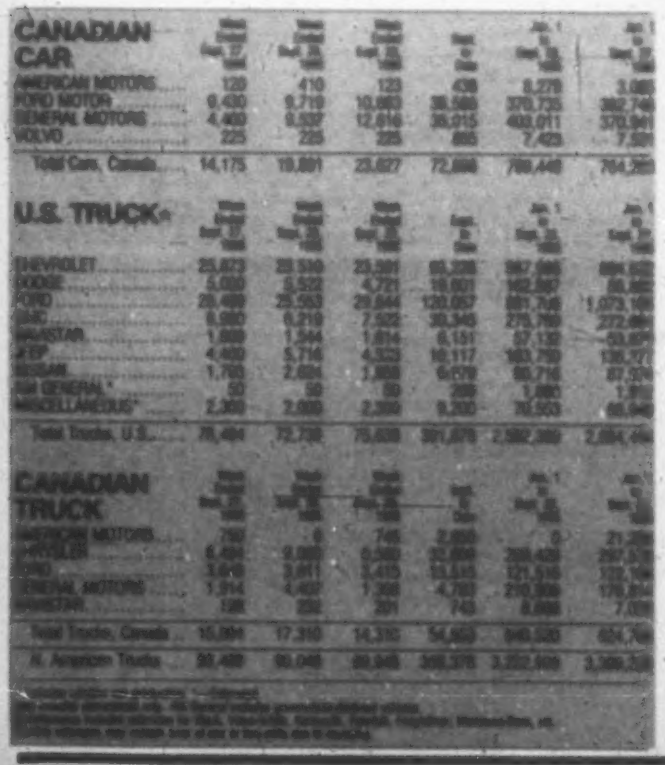
GM's car Oshawa, Ontario, (No. 2) plant was down last week because of a shortage of engine parts. The shortage also reduced production at the Oshawa (No. 1) plant also due to the shortage.

Truck makers' estimated output of 15,004 units last week, 4.85 percent more than the previous week's 14,310 but 13.02 percent below the year-ago week's 17,310.

The GM truck plant in Scarborough, Ontario, will close for one week on Oct. 6 for inventory adjustment.

On Oct. 27, output at that plant will be cut in half because of slow sales.





Honda starts Ohio build of car engines

By Jesse Snyder
AUTOMOTIVE NEWS STAFF REPORTER

ANNA, Ohio — Honda of America Manufacturing last week took a major step toward its goal of becoming a full-fledged U.S. auto manufacturing operation as it completed the first car engine at an expanded plant here.

It was also a necessary step if parent Honda Motor Co. is to reach its goal of one million U.S. car sales a year by 1990, said Shoichiro Irimajiri, Honda of America Manufacturing president.

Half of the cars would be imported and half would be built or partially built in this country.

Honda achieved two of Irimajiri's personal goals in September, he told 150 engine plant employees gathered for a ceremonial test start of the first Civic engine. One was clinching the 1986 Formula One constructor's championship with Honda's ninth victory in 14 races.

The other was the start of engine production in the United States.

"Building a car engine in the U.S. was always a dream to me," he said. "You have made that dream a reality today. You are part of the team that makes Honda the only manufacturer of both car and motorcycle engines in the U.S."

Honda expects to be running at an annualized rate of 60,000 engines at Anna by the end of this year, split between 1.2-liter models for Honda Gold Wing motorcycles and the new 1.5-liter four-cylinder overhead-cam Civic powerplant.

Production will speed up when a second shift is added Nov. 10 and will accelerate to 350 engines a day or 90,000 a year in 1987. Employment at the plant will grow from 150 to 200 by December.

Both engines are produced on the same line so the mix can easily be adjusted.

The Anna plant currently does aluminum die casting, painting, machining and assembly, which adds up to engines with about 25 percent U.S. content, including labor, Irimajiri said. Honda's eventual goal is 50 percent local content, although finding local suppliers for Honda's low volume and unconventional engine-part processes will be a challenge, he said.

Finished Civic and Gold Wing engines are shipped by truck approximately 40 miles to Honda's Marysville, Ohio, assembly plant.

That plant, enlarged this summer to an annual capacity of 300,000 cars, assembles three-door and four-door Accords and, since July, four-door Civics on a single line.

A separate line is Honda's sole world source for the top-of-the-line Gold Wing.

Also new is a $42 million plastics plant adjacent to the assembly plant. It is in pilot production of bumpers and other plastics parts for Marysville and Honda's new auto assembly plant near Alliston, Ontario, which will start regular production in October and eventually hit 60,000 units a year.

Honda already has announced it will expand Marysville again to reach 360,000 annual capacity by 1988. A feasibility study on a second Midwest assembly plant is continuing, Irimajiri said.

The Anna engine plant probably would likely be expanded if a second car assembly plant were added, Irimajiri said.